

Appendix B

IS Checklist

Environmental Checklist

Aesthetics

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Aesthetic resources in the project area include the Sacramento River and the riparian forest along the northern and southern margins of the Tisdale Bypass. Tisdale Weir, the Sutter County (County) Tisdale Boat Launch Facility (which includes a launch ramp and parking area), Garmire Road Bridge, and a gravel/dirt lot and irrigation ditch owned by the Sutter Mutual Water Company (Sutter Mutual) are also located in the project area. Adjacent land uses include agriculture and associated support infrastructure.

The topography of the project area and vicinity is relatively flat. Potential viewer groups include members of the public navigating the Sacramento River by boat and occupants of vehicles along Reclamation, Cranmore, Garmire, and Tisdale Roads. However, the Tisdale Bypass is partially obscured by trees and below the grade of the surrounding roads and agricultural land; therefore, visibility of the bypass is limited.

According to the California Department of Transportation (Caltrans) Map of Designated Scenic Routes, there are no officially designated State scenic highways in Sutter County (Caltrans, 2011). Policy ER 7.1 of the *Sutter County 2030 General Plan* designates the Sutter Buttes and the Sacramento, Feather, and Bear Rivers as scenic resources (Sutter County, 2011). The Sutter Buttes are located approximately 9 miles north of the project area, the Feather River is approximately 12 miles to the east, the Bear River is approximately 15 miles to the southeast, and the Sacramento River is adjacent to the project area.

Discussion

- a–b) **Less-than-Significant Impact.** The Proposed Project would not damage a scenic resource within a State scenic highway because there are no officially designated State scenic highways in Sutter County. The Proposed Project would not obstruct or affect public views of the Sutter Buttes or the Feather and Bear Rivers because of the distance of these resources from the project area.

The Proposed Project would include the presence of construction equipment and materials, vehicles, and crews adjacent to the Sacramento River during construction. However, construction of the Proposed Project would be temporary, not extending beyond the anticipated two seasons of construction activity, and would not substantially alter views to and from the Sacramento River. In addition, staging areas would be located in developed and disturbed areas that are used regularly for operations and maintenance (O&M) activities; therefore, staging would not block views of scenic vistas. Spoils would be placed and spread on a currently fallowed field owned by the Sacramento and San Joaquin Drainage District in the name of the Central Valley Flood Protection Board and spoils placement would not block views of scenic vistas.

Permanent structures for the Proposed Project include a control building, measuring approximately 30 feet by 30 feet, that would be constructed at the north end of the weir; an approximately 32-foot-wide by 11-foot-tall concrete notch opening (fish passage structure); an operable gate at the north end of Tisdale Weir; and an approximately 130-foot-long connection channel from the notch to the Sacramento River. Because of the control building's relatively small size, the building's distance from the Sacramento River, and the presence of riparian vegetation along the bank of the Sacramento River, the control building would not affect scenic vistas. The notch, operable gate, and connection channel at the existing weir would not adversely affect views of the Sacramento River relative to current views.

O&M activities for the Proposed Project would not substantially change the character of the project vicinity relative to current conditions, and therefore would not adversely affect views of the Sacramento River.

As a result, the Proposed Project would not have a substantial adverse effect on a scenic vista or substantially damage scenic resources. These impacts would be less than significant, and these issues will not be evaluated in the environmental impact report (EIR).

- c) **Less-than-Significant Impact.** The visual character of the project area is defined by the Sacramento River, Tisdale Weir, and riparian vegetation along the bypass. Although a limited number of trees and vegetation may be removed to facilitate construction, which would result in a change to the visual character of the project area, the Proposed Project would not result in substantial degradation of the visual character of the project area or quality of public views. The presence of construction equipment, vehicles, and crews in the project area would change local visual conditions during construction. However, these effects of the Proposed Project would be temporary, not extending beyond the

anticipated two seasons of construction activity. O&M activities for the Proposed Project would not substantially degrade the existing visual character because similar O&M activities currently take place in the project area. Therefore, impacts of the Proposed Project on the area's visual character would be less than significant, and this issue will not be evaluated in the EIR.

- d) **Less-than-Significant Impact.** The project area is located in a rural setting where primary sources of nighttime light and daytime glare are limited to rural residences, some nighttime agricultural activities, and passing vehicles. The Proposed Project would involve rehabilitation and reconstruction of the existing Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements including a control building for monitoring equipment and an access road. Therefore, implementing the Proposed Project would not add substantial new sources of light or glare to the project vicinity.

Project construction would typically occur between 7 a.m. and 7 p.m. but may be extended into the nighttime hours during key construction periods. During these times, project-related lighting sources could affect nighttime views. However, nighttime construction work would be restricted to the project area. Lighting would originate primarily from construction vehicles and from areas within the Tisdale Bypass, out of the direct view of the nearest residences on Reclamation Road and south of the Garmire Road Bridge. In addition, these impacts would be temporary, not extending beyond the anticipated two seasons of construction activity. Given the relatively short-term nature of project construction, construction-related lighting impacts would be less than significant, and this issue will not be evaluated in the EIR.

References

Caltrans (California Department of Transportation). 2011. California Scenic Highway Mapping System: Sutter County.

Sutter County. 2011. Sutter County 2030 General Plan. Adopted by Sutter County Board of Supervisors on March 29, 2011, Resolution No. 11-029. Prepared in consultation with Atkins (formerly PBS&J), DKS Associates, West Yost Associates, and Willdan Financial Services. Yuba City, California.

Agriculture and Forestry Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
AGRICULTURE AND FORESTRY RESOURCES —				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project on agricultural resources are discussed in greater detail in Section 3.2, *Agricultural Resources*, of the EIR.

Environmental Setting

Sutter County is one of California’s leading agricultural counties; more than 90 percent of the county’s total land acreage is used for agricultural purposes. The project area includes lands zoned for agriculture and open space. The California Department of Conservation (DOC) administers the Farmland Mapping and Monitoring Program, a statewide agricultural land inventory. This inventory classifies “Important Farmland” into several categories, among which are Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

The portion of the project area within and immediately adjacent to the Tisdale Bypass is designated as Other Land by the DOC and the spoils site is designated as Grazing Land. Parcels adjacent to the Tisdale Bypass are designated as Prime Farmland and Farmland of Statewide Importance, and land within the Sutter Bypass downstream of the confluence with the Tisdale Bypass is designated as Unique Farmland (DOC, 2016).

The Williamson Act enables governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. The project area does not include lands in Williamson Act contracts. Some lands adjacent to the Tisdale and Sutter bypasses are currently in Williamson Act contracts (DOC, 2015).

There is no forest land in or adjacent to the project area or vicinity.

Discussion

- a, b, e) **Potentially Significant Impact.** The Proposed Project would not result in changes to or conflicts with existing zoning for agricultural use and open space because the project elements are consistent with existing land uses and the existing zoning for the project area. Given the proximity of the project area to Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and parcels in Williamson Act contracts, construction of the Proposed Project and O&M of project facilities have the potential to indirectly affect these areas. Impacts would be potentially significant, and these issues will be evaluated in the EIR.
- c–d) **No Impact.** None of the land in the project area or vicinity is zoned as forest land, timberland, or Timberland Production. Therefore, the Proposed Project would not result in the conversion of forest land to nonforest use. No impact would occur, and these issues will not be evaluated in the EIR.

References

- DOC (California Department of Conservation). 2015. Sutter County Williamson Act FY 2014/2015. Scale: 1:100,000. Division of Land Resource Protection. Available: <ftp://ftp.consrv.ca.gov/pub/dlrp/wa/>. Accessed August 6, 2019.
- . 2016. California Important Farmland: 1984–2016. Available: <https://maps.conservation.ca.gov/dlrp/ciftimeseries/>. Accessed August 6, 2019.

Air Quality

Issues (and Supporting Information Sources):	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
AIR QUALITY —				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project on air quality are discussed in greater detail in Section 3.3, *Air Quality*, of the EIR.

Environmental Setting

The project area is located in Sutter County and is under the jurisdiction of the Feather River Air Quality Management District (FRAQMD). Sutter County lies within the Sacramento Valley Air Basin (SVAB). The topographic features giving shape to the SVAB are the Coast Ranges to the west, the Sierra Nevada to the east, and the Cascade Range to the north. These mountain ranges channel winds through the SVAB and act as barriers inhibiting the dispersion of pollutant emissions. Criteria air pollutants of concern include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter.

Discussion

a–c) **Potentially Significant Impact.** Project construction would involve earth-moving activities that would generate fugitive dust, resulting in short-term increases in particulate matter. In addition, construction equipment exhaust and haul and worker trips in vehicles could generate other criteria pollutants. O&M activities could increase emissions of criteria pollutants relative to existing conditions, potentially resulting in long-term air quality impacts.

The EIR will analyze the potential for the Proposed Project to conflict with or obstruct implementation of an air quality plan or result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

d) **No Impact.** During construction and operation of the Proposed Project, combustion exhaust and engine dust from diesel-fueled equipment could generate localized, short-term, non-persistent odors near the project site. However, because of the rural location of the project area, these odors would not be perceptible beyond the project site boundaries;

and given the absence of sensitive receptors in the project vicinity, no exposure would occur. Similar impacts, but on an even smaller scale, would occur from the operation of heavy-duty equipment for maintenance activities. Given the temporary nature of construction and maintenance activities at the project site and the distance to the nearest sensitive receptors, the Proposed Project would have no impact with respect to the creation of odors affecting a substantial number of people. This issue will not be evaluated in the EIR.

Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project on biological resources are discussed in greater detail in Section 3.4, *Biological Resources*, of the EIR.

Environmental Setting

Environmental Science Associates (ESA) biologists conducted biological resources and botanical surveys of the project area in 2018 and 2019. Eight natural community types/land cover types were observed: annual grassland, riparian forest, seasonal floodplain, seasonal wetland, riverine, irrigation ditch, developed, and disturbed.

Discussion

- a–e) **Potentially Significant Impact.** The EIR will analyze the potential for the Proposed Project to have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service; on any riparian habitat or other sensitive natural community; and on State or federally protected wetlands. The EIR will analyze potential direct and indirect species impacts, such as impacts caused by habitat fragmentation and habitat loss.

In addition, the EIR will analyze the potential for the Proposed Project to interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or to impede the use of native wildlife nursery sites. Further, the EIR will analyze the potential for the Proposed Project to conflict with local policies or ordinances protecting biological resources.

- f) **No Impact.** The project area is not within the boundaries of any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

The Yuba-Sutter Natural Community Conservation Plan/Habitat Conservation Plan is in development. This cooperative planning effort was initiated by Yuba and Sutter Counties in connection with improvements to State Routes 99 and 70 and future development in the areas surrounding those highways. The draft plan currently covers four different plant species and 15 wildlife species, and the planning area encompasses most of Yuba and Sutter Counties. The project area occurs within the current planning area for the Yuba-Sutter Natural Community Conservation Plan/Habitat Conservation Plan; however, this plan is still in development and has not been approved or adopted. Therefore, the Proposed Project would not conflict with the provisions of any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. No impact would occur, and this issue will not be evaluated in the EIR.

Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project on cultural resources are discussed in greater detail in Section 3.5, *Cultural Resources*, of the EIR.

Environmental Setting

ESA completed a cultural resources study for the Proposed Project that included an overview of the environmental, ethnographic, and historic background of the California Environmental Quality Act (CEQA) Area of Potential Effects (C-APE), defined as the horizontal and vertical maximum extents of the potential direct impacts of the Proposed Project on cultural resources, with an emphasis on aspects related to human occupation (ESA, 2019). In October 2018, ESA staff conducted a cultural resources records search for the C-APE and vicinity at the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park. Also, in October 2018, at the request of ESA, staff from the Northeast Information Center (NEIC) at Chico State University conducted a cultural resources records search for the C-APE and vicinity. Additionally, Caltrans Section 106 documentation from the Garmire Road Bridge Replacement Project, which included portions of the C-APE, was obtained from Caltrans as part of this analysis.

ESA contacted the California Native American Heritage Commission (NAHC) on October 5, 2018, requesting a search of the NAHC's Sacred Lands File and a list of Native American representatives who may have interest in the Proposed Project. The NAHC replied to ESA on October 9, 2018, stating that the Sacred Lands File has no record of sacred sites in the C-APE. The reply also included a list of Native American representatives to contact regarding these resources and who may be interested in the Proposed Project.

DWR sent a letter, via certified mail, to United Auburn Indian Community of the Auburn Rancheria (UAIC) Chairperson Gene Whitehouse, on October 31, 2018, to invite UAIC to formally consult with DWR under Assembly Bill 52 and Public Resources Code (PRC) Section 21080.3. DWR and UAIC Tribal Monitor Rene Guerrero participated in a field survey with ESA on November 8, 2018. On November 28, 2018, DWR received a letter from UAIC Chairperson Whitehouse, dated November 13, 2018. The letter stated that UAIC would like to formally consult on the Proposed Project.

Between April and December 2019, DWR and UAIC corresponded and conducted consultation regarding potential impacts of the Proposed Project on cultural resources and tribal cultural resources and appropriate mitigation measures to reduce any such impacts. In December 2019, DWR and UAIC agreed on the impact conclusions for cultural resources and tribal cultural resources and mitigation measures for the current EIR, and UAIC agreed to conclude consultation with the language incorporated into the EIR.

On November 14, 2018, DWR sent letters, via certified mail, to each contact provided in the NAHC reply, other than the UAIC representative. Additional information regarding Native American correspondence is provided in the EIR.

In November 2018, ESA archaeologists and a UAIC tribal monitor conducted a cultural resources pedestrian survey of the C-APE. Based on the results of background research and the survey, one architectural resource older than 50 years of age was identified in the C-APE. The resource, the Tisdale Weir and Bypass, consists of the approximately 1,150-foot-long concrete Tisdale Weir and the approximately 4-mile-long earthen Tisdale Bypass, with associated levees. The resource was determined individually eligible for the National Register of Historic Places under Criterion C as a unique combination of a vehicular bridge and weir. However, the historic-era bridge was subsequently removed and replaced in 2008, thereby resulting in the resource's loss of a significant contributing component. During the 2019 study, the significance of the resource in its current condition was evaluated, and was found to no longer retain sufficient integrity to reflect its historic significance as an engineering feature. Therefore, the resource is not eligible for the California Register of Historical Resources (and National Register of Historic Places) as an individual resource or as a contributor to any historic district.

Discussion

- a) **No Impact.** The Tisdale Weir and Bypass architectural resource has been evaluated as not eligible for the California Register of Historical Resources as an individual resource or as a contributor to any historic district; thus, it does not qualify as a historical resource, as defined in State CEQA Guidelines Section 15064.5. Therefore, no known historical resources, as defined in Section 15064.5, are present in the C-APE. No impact would occur, and this issue will not be evaluated in the EIR.
- b–c) **Potentially Significant Impact.** No archaeological resources have been identified in the C-APE. No known archaeological resources that may qualify as historical resources (as defined in State CEQA Guidelines Section 15064.5) or unique archaeological resources (as defined in PRC Section 21083.2[g]) are present in the C-APE. As a result, the Proposed Project would not affect any archaeological resource pursuant to State CEQA Guidelines Section 15064.5.

No human remains have been identified in the C-APE through archival research, field surveys, or Native American consultation or correspondence. Also, extensive work, including excavations for installing deep foundations for the Garmire Road Bridge, has been previously conducted in the C-APE without encountering any human remains, and

the land use designations for the C-APE do not include cemetery uses. Therefore, the Proposed Project is not anticipated to disturb any human remains.

However, the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil. It is possible that such activities could unearth, expose, or disturb subsurface archaeological resources that have not been identified on the surface or previously unknown human remains. Because previously unrecorded archaeological deposits could be present in the C-APE and could be found to qualify as archaeological resources under State CEQA Guidelines Section 15064, and because previously unknown human remains could be present, this impact would be potentially significant. This issue will be evaluated in the EIR.

References

ESA (Environmental Science Associates). 2019. *Tisdale Weir Rehabilitation and Fish Passage Project, Sutter County, California: Cultural Resources Inventory and Evaluation Report*. Prepared for California Department of Water Resources.

Energy

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ENERGY — Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Sutter County uses a mixture of energy resources: electricity, natural gas, and solar energy. According to the California Energy Commission, Sutter County used approximately 650 million kilowatt-hours in the years 2013–2017 (CEC, 2019). The nonresidential sector used between 50 and 60 percent of the total energy consumed during that time period. The County has two “peaker” facilities that provide additional power during periods of high-power demand in the state. Each facility can produce up to 47,000 kilowatt-hours of energy. Pacific Gas and Electric Company provides electricity to local customers.

Sutter County also uses four cogeneration facilities, fueled by natural gas, that support industrial or commercial uses and generate surplus electricity. Electricity can be produced through cogeneration of waste heat in business, industry, and governmental facilities, thus saving money and conserving energy.

Extensive natural gas resources are present throughout western Sutter County. The future potential of the county's natural gas resources is anticipated to be in good standing, given that Sutter County produces less than 1 percent of its estimated gas reserves annually (Sutter County, 2008).

Potential future energy sources include waste-to-energy and solar. Other energy production systems were considered for the county and found to be unviable for large-scale energy production; these systems include hydroelectric, geothermal, and wind energy (Sutter County, 2008).

The California Energy Commission prepared the *Revised Transportation Energy Demand Forecast, 2018–2030*, as part of its broader forecast of California energy demand, conducted every 2 years as part of the Integrated Energy Policy Report process. The commission analyzes forecasts of energy demand in California under three scenarios: high demand, mid demand, and low demand.

- *Gasoline*: The forecasted statewide demand for gasoline ranges from 12.1 billion to 12.6 billion gallons in 2030. Light-duty vehicles generate most of this demand. Although the models show the number of light-duty vehicles growing with population and income over the forecast horizon, total gasoline demand continuously declines in all three scenarios.
- *Diesel*: Demand for diesel rises modestly, by 1–5 percent, from 3.8 billion gallons in 2017 to between 3.8 billion (high-demand scenario) and almost 4.0 billion gallons (low-demand scenario) by 2030.
- *Electricity*: Demand for electricity in the transportation sector increases to 12,000 gigawatt-hours by 2030 in the low-demand scenario and to 18,000 gigawatt-hours in the high-demand scenario. These demand projections represent a six-fold increase and nine-fold increase, respectively, from 2015.

A major theme of the California Energy Commission's energy demand forecast through 2030 is that the statewide shift toward electrification of transportation will continue. This narrative drives the growing demand for transportation electricity and hydrogen shown in the commission's forecast. It also leads to the forecast of that demand for gasoline will decrease through 2030 (CEC, 2018).

Discussion

Consistent with PRC Section 21100(b)(3), this impact analysis evaluates the potential for construction and O&M activities for the Proposed Project to result in a substantial increase in energy demand and wasteful use of energy. The analysis evaluates whether estimates of construction energy use for the Proposed Project would be considered excessive, wasteful, or inefficient.

- a) **Less-than-Significant Impact.** During construction of the Proposed Project, the use of construction tools and equipment, truck trips for hauling materials, and construction workers' commutes to and from the project area would consume fuel. The rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements (including a control building for monitoring equipment and an access road) are expected to be completed in no more than

two construction seasons outside the flood season, but may be completed in just one construction season. The construction season is approximately 6.5 months long (April 16 through October 31). As such, completion of the Proposed Project would require approximately 13 months of total construction time.

Construction activities and corresponding fuel energy consumption would be temporary and localized, as the use of diesel fuel and heavy-duty equipment would not be a long-term condition of the Proposed Project. In addition, the project has no unusual characteristics that would require using construction equipment or haul vehicles that would be less energy efficient than equipment or vehicles used at similar construction sites elsewhere in California.

Construction-related fuel consumption by the Proposed Project would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region. This impact would be less than significant, and this issue will not be evaluated in the EIR.

Once construction is complete, operational energy use would be slightly greater than current operational needs, given the operation of the gate. Energy would be used for O&M activities: truck trips to the weir; inflation or deflation of the air bladders to operate the gate; removal of debris and sediment from the energy dissipation and fish collection basin; erosion repair; and repair of damage to the weir and gate. Maintenance would require the use of one or more light-duty trucks, cranes, excavators, loaders, dump trucks, graders, bulldozers, backhoes, skid-steers, or chain saws for removal of sediment and large wood debris. Because the Proposed Project's operational impacts on energy resources would be driven primarily by limited maintenance activities, energy use would be negligible. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.

- b) The transportation sector is a major end user of energy in California, accounting for approximately 40.3 percent of total statewide energy consumption in 2017 (U.S. Energy Information Administration, 2019). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California's 30 million vehicles consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC, 2016).

Existing transportation energy standards are promulgated through the regulation of fuel refineries and products, such as the Low Carbon Fuel Standard, which mandates a 10 percent reduction in the non-biogenic carbon content of vehicle fuels by 2020. In addition, the U.S. Environmental Protection Agency and the California Air Resources Board have established other regulatory programs with emissions and fuel efficiency standards, such as Pavley II/Low-Emission Vehicle III from California's Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) Greenhouse Gas regulation. The

California Air Resources Board has set a goal of 4.2 million zero-emission vehicles on the road by 2030 (CARB, 2016).

Further, project construction would need to comply with State requirements designed to minimize idling and associated emissions, which also minimize the use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to 5 minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation (California Code of Regulations Title 13, Section 2485). The County has not implemented an energy action plan. However, energy use would be reduced through best management practices (BMPs) such as reducing idling time and electricity use and developing a rideshare program. These will be discussed in Section 3.6, *Greenhouse Gas Emissions*, of the EIR. Adherence to State requirements such as minimizing idling and associated emissions would minimize fuel use.

In conclusion, the Proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency or impede progress toward achieving related goals and targets. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.

References

- CARB (California Air Resources Board). 2016. Mobile Source Strategy. May 2016. Available: <https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm>. Accessed March 2019.
- CEC (California Energy Commission). 2016. Summary of California Vehicle and Transportation Energy. Available: http://www.energy.ca.gov/almanac/transportation_data/summary.html#vehicles. Accessed March 2019.
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- . 2019. Electricity Consumption by County (Sutter County 2013–2017). Available: <http://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed January 10, 2019.
- Sutter County. 2008. Sutter County General Plan Update Technical Background Report. Prepared by PBS&J in partnership with West Yost & Associates, DKS Associates, MuniFinancial, and Applied Development Economics. February 2008.
- U.S. Energy Information Administration. 2019. California State Profile and Energy Estimates: Consumption by Sector. Available: <http://www.eia.gov/state/?sid=CA#tabs-2>. Accessed August 6, 2019.
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Geology and Soils

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
GEOLOGY AND SOILS — Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Regional Geology

Sutter County is located in the Great Valley geomorphic province of California. The Great Valley is an alluvial plain in central California that is approximately 50 miles wide and 400 miles long. The Great Valley's northern portion is the Sacramento Valley, drained by the Sacramento River, and its southern portion is the San Joaquin Valley, drained by the San Joaquin River.

The geology of the Great Valley is typified by thick sequences of alluvial sediments derived primarily from erosion of the Sierra Nevada to the east, and to a lesser extent, from erosion of the Klamath Mountains and Cascade Range to the north. These sediments were transported downstream and subsequently laid down as a river channel, floodplain deposits, and alluvial fans.

Seismic Hazards

Surface fault rupture (or disruption at the ground surface as a result of fault activity) and seismic ground shaking are considered primary seismic hazards by the State of California. The major

hazards associated with earthquakes are surface fault rupture (ground displacement), ground motion (or ground shaking), ground failure (e.g., liquefaction), and landslides. Each of these hazards is discussed further below.

Surface Fault Rupture

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude and nature of fault rupture can vary for different faults, or even along different strands of the same fault. Ground rupture is considered most likely along active faults. According to the *Sutter County General Plan Technical Background Report* (Sutter County, 2008), Sutter County does not contain any known active earthquake faults and no portion of the county is located within an Alquist-Priolo Earthquake Special Study Zone. As such, fault ground rupture is not considered a hazard in the project area.

Potential Ground Motion

Unlike surface rupture, ground shaking is not confined to the trace of a fault, but propagates into the surrounding areas during an earthquake. The intensity of ground shaking typically diminishes with distance from the fault, but ground shaking may be locally amplified or prolonged by some types of substrate materials. Based on historic data and known active or potentially active faults in the region, Sutter County has the potential to experience low to moderate ground shaking (Sutter County, 2008).

Liquefaction

Liquefaction is the process in which the soil is transformed to a fluid form during intense and prolonged ground shaking. Areas most prone to liquefaction are those that are water saturated and consist of relatively uniform sands that are of loose to medium density. Liquefaction can lead to severe settlement of foundations and slope failure. Properties such as depth to groundwater, soil texture and density, and sediment within and above the groundwater are the primary factors that determine whether an area is prone to liquefaction. The sediments most susceptible to liquefaction are saturated, unconsolidated sand and silt soils (particularly Quaternary-age units) with low plasticity within 50 feet of the ground surface (CGS, 2008). The clean sandy layers that parallel the Sacramento River have lower soil densities and a high overall water table and may be at a higher risk if major seismic activity were to occur (Sutter County, 2008).

Earthquake-Induced Settlement

The relatively rapid compaction and settling of subsurface materials (particularly loose, noncompacted, and variable sandy sediments) during prolonged ground shaking can cause settlement of the ground surface. Typically, areas underlain by artificial fills, unconsolidated alluvial sediments, and slope wash, and areas with improperly engineered construction fills are susceptible to settlement. Sutter County has low to moderate potential for ground shaking.

Slope Instability and Landslides

Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, triggered by either static (i.e., gravity) or dynamic (i.e., earthquake) forces. Exposed rock slopes undergo rockfalls, rockslides, or rock avalanches, while soil slopes experience shallow soil slides, rapid debris flows, and deep-seated

rotational slides. In general, Sutter County is located in a landslide-free zone because of its flat topography (Sutter County, 2008).

Soils and Soil-Related Hazards

Erosion

Erosion is the detachment and movement of soil materials through natural processes or human activities. In general, rates of erosion can vary depending on the soil resource's capacity to drain water, slope angle and length, extent of ground cover, and human influence. Soils underlying the project area consist of Columbia fine sandy loam, 0 to 2 percent slopes; Columbia fine sandy loam, channeled, 0 to 2 percent slopes; Holillipah loamy sand, frequently flooded, 0 to 2 percent slopes; and Nueva loam, 0 to 1 percent. These soils have moderate to severe potential for erosion (NRCS, 2019).

Expansive Soils

Expansive soils are characterized by a characteristic called "shrink-swell." Over a long time period, structural damage may result, usually from inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Expansive soils consist primarily of clays, which expand in volume when water is absorbed and shrink when dried. Soil resources in the project area consist primarily of loams, with smaller areas of clays, with low shrink-swell potential (NRCS, 2019).

Corrosive Soils

Corrosive soils can damage underground pipelines and cables, and can weaken roadway structures. The soils in the project area have high potential to erode steel and low potential to corrode concrete (NRCS, 2019).

Land Subsidence

Subsidence is the gradual lowering of the land surface caused by loss or compaction of underlying materials. Subsidence can result from groundwater, gas, and oil extraction, or from the decomposition of highly organic soils. Sutter County is not subject to high subsidence because a few of the factors that cause subsidence do not exist in the county. Although Sutter County contains several natural gas withdrawal locations, the gas fields are spread out over a large area and do not individually generate high volumes of gas. Sutter County does not have oil withdrawal drawdown. Groundwater drawdowns do occur; however, substantial recharge is provided by the Sacramento and Feather Rivers and by snowmelt (Sutter County, 2008).

Paleontological Resources

Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, and the enormous number of organisms that have lived through time, the preservation of plant or animal remains as fossils is extremely rare. Because of the infrequency of fossil preservation, particularly vertebrate fossils, they are considered to be nonrenewable resources. Due to the rarity and scientific information they can provide, fossils are important records of ancient life.

Sutter County is underlain by the Modesto Formation (alluvium), Riverbank Formation (alluvium), and Turlock Lake Formation (sand, silt, and gravel). The Modesto Formation is generally located in the eastern portion of the project vicinity, running north/south along the Feather River; the Riverbank Formation is generally located at the base of the Sutter Buttes and in the southern portion of the county; and the Turlock Lake Formation is generally located in the southwestern and southeastern portions of the county, adjacent to Placer and Yuba Counties.

Discussion

- a.i-iv) **Less-than-Significant Impact.** Sutter County is not located within an earthquake fault zone, and there are no known active faults in the project area or in the vicinity. The project area is in a generally flat area far from active faults, with a low to moderate potential for ground shaking, and the Proposed Project would not involve constructing any structures at risk of major ground disturbance. Rehabilitation of Tisdale Weir as part of the Proposed Project is intended to extend the structure's design life by 50 years or more, making it stronger and more reliable. Because the project area is not located on hillsides or unstable geologic units, the Proposed Project would not result liquefaction or landslides. Therefore, less-than-significant impact would occur related to earthquake faults, ground shaking, and seismic-related ground failure, including liquefaction or landslides. These issues will not be evaluated in the EIR.
- b) **Less-than-Significant Impact.** Soils in the project area have moderate to severe potential for erosion. Soil removed from the Tisdale Bypass during construction and O&M activities and placed on the spoils parcel has the potential to result in erosion. The side slopes for all excavated soil deposited on the spoils parcel would be approximately 3H:1V (horizontal:vertical), which would slow down the velocity of surface runoff on the slopes, and the spoils parcel would be graded to direct surface drainage away from the north levee of the Tisdale Bypass.

During construction, DWR would be required to adhere to FRAQMD requirements to stabilize the soil to prevent the wind-borne dispersal of soil (see Section 3.3, *Air Quality*, of the EIR). Project contractors would be required to comply with the Central Valley Regional Water Quality Control Board's (Regional Water Board's) National Pollutant Discharge Elimination System (NPDES) General Construction Permit for Discharges of Stormwater Associated with Construction Activities (NPDES General Stormwater Permit) before the start of earth-disturbing activities. Among the permit requirements are BMPs for erosion control and preparation of a storm water pollution prevention plan (SWPPP). See Section 3.7, *Hydrology and Water Quality*, of the EIR for details regarding BMPs designed to protect water quality.

Therefore, project features and compliance with the FRAQMD requirements and NPDES Construction General Permit would ensure that the potential impact of soil erosion or the loss of topsoil would be avoided and/or minimized. This impact would be less than significant, and this issue will not be evaluated in the EIR.

- c-d) **Less-than-Significant Impact.** The Proposed Project would be located on soils with low shrink-swell potential in the generally flat channel of the Tisdale Bypass. The Proposed Project would involve rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements, including a control building for monitoring equipment and an access road. Because the project area is not located on hillsides or unstable geologic units, the Proposed Project would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Further, to protect against potentially adverse effects associated with site-specific soils and geology constraints, the Proposed Project would be constructed to industry standards, including the California Building Code and American Society of Civil Engineers standards. Impacts would be less than significant, and these issues will not be evaluated in the EIR.
- e) **No Impact.** The Proposed Project would not use septic tanks or alternative wastewater systems; therefore, no impact would occur, and this issue will not be evaluated in the EIR.
- f) **No Impact.** The Proposed Project would involve rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements, including a control building for monitoring equipment and an access road. The Proposed Project is in an area that was previously disturbed during construction of the original weir construction and maintenance of the bypass. Native soil would be excavated to a maximum depth of approximately 16 feet; however, the Proposed Project is not in an area identified as having formations that contain fossils, and paleontological resources would not be deposited in the project area from either the Sacramento River or the Tisdale Bypass. Therefore, no impact would occur, and this issue will not be evaluated in the EIR.

References

- CGS (California Geological Survey). 2008. Guidelines for Evaluating and Mitigating Seismic Hazards in California. Special Publication 117A. Originally adopted March 13, 1997; revised and readopted September 11, 2008.
- NRCS (Natural Resources Conservation Service). 2019. Web Soil Survey. Available: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed January 7, 2019.
- Sutter County. 2008. Sutter County General Plan Update Technical Background Report. Prepared by PBS&J in partnership with West Yost & Associates, DKS Associates, MuniFinancial, and Applied Development Economics. February 2008.

Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
GREENHOUSE GAS EMISSIONS — Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project related to greenhouse gas (GHG) emissions are discussed in greater detail in Section 3.6, *Greenhouse Gas Emissions*, of the EIR.

Environmental Setting

“Global warming” and “global climate change” are the terms used to describe the increase in the average temperature of the earth’s near-surface air and oceans since the mid-20th century and its projected continuation. Warming of the climate system is now considered unequivocal (IPCC, 2007). Natural processes and human actions have been identified as the causes of this warming. The International Panel on Climate Change has concluded that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from preindustrial times to 1950 and had a small cooling effect afterward. However, increasing GHG concentrations resulting from human activity such as fossil fuel burning and deforestation are believed to be responsible for most of the observed temperature increase since 1950.

Increases in GHG concentrations in the earth’s atmosphere are thought to be the main cause of human-induced climate change. Certain gases in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space. This is sometimes referred to as the “greenhouse effect” and the gases that cause it are called “greenhouse gases.” Some GHGs occur naturally and are necessary for keeping the earth’s surface habitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have reduced the amount of solar radiation that is reflected back into space, intensifying the natural greenhouse effect and resulting in an increase in global average temperature.

Carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are the principal GHGs. When concentrations of these gases exceed natural concentrations in the atmosphere, the greenhouse effect may be intensified. CO₂, methane, and nitrous oxide occur naturally, and are also generated through human activity. Emissions of CO₂ are largely byproducts of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. (Off-gassing is defined as the release of chemicals under normal conditions of temperature and pressure.) Other human-generated GHGs include fluorinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher heat-absorption potential than CO₂ and are byproducts of certain industrial processes.

CO₂ is the reference gas for climate change because it is the predominant GHG emitted. The potential effect of each of the aforementioned gases on global warming is a combination of the mass of their emissions and their global warming potential (GWP). GWP indicates, on a pound-for-pound basis, how much a gas is predicted to contribute to global warming relative to the amount of warming predicted to be caused by the same mass of CO₂. For example, methane and nitrous oxide are substantially more potent GHGs than CO₂, with respective GWPs of 21 and 310 times that of CO₂ (CARB, 2018).

In emissions inventories, GHG emissions are typically reported in terms of pounds or metric tons of CO₂ equivalents (CO₂e). CO₂e is calculated as the product of the mass emitted of a given GHG and its specific GWP. Although methane and nitrous oxide have much higher GWPs than CO₂, CO₂ is emitted in such vastly higher quantities that it accounts for the majority of GHG emissions in CO₂e, both from residential developments and from human activity in general.

Discussion

- a–b) Construction emissions are associated with the energy used to construct the project, including construction equipment and worker vehicle trips. Operational emissions include those from the energy used to operate and maintain the Proposed Project, including equipment and vehicles. The EIR will analyze the potential for the Proposed Project to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The EIR also will analyze the potential for the Proposed Project to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

References

- CARB (California Air Resources Board). 2018. Global Warming Potentials. Available: <https://ww3.arb.ca.gov/cc/inventory/background/gwp.htm>. Last updated June 22, 2018. Accessed August 2019.
- IPCC (Intergovernmental Panel on Climate Change). 2007. Climate Change 2007: Impacts, Adaptation and Vulnerability. Available: https://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4_wg2_full_report.pdf. Accessed August 2019.

Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
HAZARDS AND HAZARDOUS MATERIALS —				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project area is in unincorporated Sutter County. The Environmental Health Division of the County’s Community Services Department enforces hazardous waste regulations and serves as Sutter County’s Certified Unified Program Agency. No schools or airports are located within 1 mile of the Proposed Project.

Hazardous Materials

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode, or generate vapors when mixed with water (reactivity). As defined by the California Health and Safety Code (Section 25501[o]), a “hazardous material” is any material “that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.” In some cases, past uses can result in spills or leaks of hazardous materials to the ground, resulting in soil and groundwater contamination. The use, storage, transportation, and disposal of hazardous materials are subject to numerous federal, State, and local laws and regulations.

Information about hazardous materials sites in the project area was collected by conducting a review of the California Environmental Protection Agency's Cortese List and the State Water Resources Control Board's GeoTracker list. The Cortese List includes data resources that provide information regarding the facilities or sites identified as meeting Cortese List requirements. The Cortese List is updated at least annually, in compliance with California regulations (California Government Code Section 65964.6[a][4]), and includes federal Superfund sites, State response sites, nonoperating hazardous waste sites, voluntary cleanup sites, and school cleanup sites. The GeoTracker list shows underground storage tanks. Based on a review of the Cortese List conducted in December 2018, no listed sites are located within 1 mile of the project area (DTSC, 2018).

Fire Suppression

The project area is located in a Local Responsibility Area, where the County is responsible for fire suppression. The California Department of Forestry and Fire Protection has determined that most of the project area is in a Moderate Fire Hazard Severity Zone, with portions falling within an Unzoned Fire Hazard Severity Zone (CAL FIRE, 2007).

Discussion

- a-b) Equipment and materials used during project construction activities would include fuels, oils, and lubricants, which are all commonly used in construction. The routine use or an accidental spill during construction could inadvertently release hazardous materials, which could adversely affect construction workers, the public, and the environment.

Construction activities would be required to comply with numerous hazardous materials regulations. These regulations are enforced to ensure that hazardous materials are transported, used, stored, and disposed of safely to protect worker safety, and to reduce the potential for a release of fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies such as the Sacramento River. Construction contractors would be required to acquire coverage under the NPDES General Stormwater Permit, which requires the preparation and implementation of a SWPPP for construction activities. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment inspections, equipment, and fuel storage; describe protocols for responding immediately to spills; and describe BMPs for controlling site run-on and runoff. See Section 3.7, *Hydrology and Water Quality*, of the EIR for details regarding BMPs designed to minimize protect water quality.

Transport, use, or disposal of these materials would also follow DWR protocols for material safety storage and handling, as well as BMPs for containment and prevention of spills in the project area. In addition, the U.S. Department of Transportation, Caltrans, and the California Highway Patrol would regulate the transportation of hazardous materials. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications to minimize the risk of an accidental release.

- The Proposed Project would comply with applicable laws and regulations governing the transportation, use, handling, and disposal of hazardous materials. This compliance would limit the potential for the project to create hazardous conditions caused by the use or accidental release of hazardous materials. Therefore, impacts would be less than significant, and these issues will not be evaluated in the EIR.
- c) **No Impact.** No existing or proposed schools are or would be located within one-quarter mile of the project area. Therefore, the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur, and this issue will not be evaluated in the EIR.
- d) **No Impact.** The project area is not on a list of hazardous materials sites compiled under Government Code Section 65962.5 (the Cortese List); therefore, the Proposed Project would not create a significant hazard to the public or the environment from identified hazardous materials sites. No known hazardous materials exist in the project area. No impact would occur, and this issue will not be evaluated in the EIR.
- e) **No Impact.** The project area is not located within an airport land use plan. The nearest airport is the Vandeford Ranch Company Airport, a private airport approximately 7 miles northeast of the project area. No structures that would impede or impair airport operations would be erected on airport property or within 2 miles of a public or private use airport. Therefore, no impact would occur, and this issue will not be evaluated in the EIR.
- f) **Less-than-Significant Impact.** The Proposed Project would result in a minimal increase in traffic levels along local roadways compared to existing conditions. Project construction would require approximately 34 construction workers. Workers would access the project area daily from the south via State Route 113 North to Reclamation Road, or from the north via State Route 20 to Tarke Road to Garmire Road or Reclamation Road. The Proposed Project would establish four staging areas in the project area. Workers would park their vehicles in the staging areas or on top of the levee road. Contractor fuel storage would be isolated to the southernmost staging area, outside of in-water areas. If necessary, the concrete batch plant would be located in the southernmost staging area or the spoils site. However, given the rural nature of the project area, relatively low traffic volumes, and the temporary nature of construction, alternative routes are anticipated to be readily available. Therefore, the Proposed Project would not impair or physically interfere with an adopted emergency response or evacuation plan. This impact would be less than significant, and this issue will not be evaluated in the EIR.
- g) **Less-than-Significant Impact.** The Tisdale Bypass is designated as a Local Responsibility Area–Moderate by the California Department of Forestry and Fire Protection (CAL FIRE, 2007). However, project activities would occur within the bypass where riparian vegetation is present. Both the Tisdale Bypass and the spoils parcel are adjacent to lands occupied by irrigated agriculture. The vegetation and land use types have a low potential for wildland fires; therefore, the Proposed Project is not expected to

expose people or structures to a significant risk of loss, injury, or death involving wildland fires. In addition, as a standard DWR safety practice, all vehicles and equipment would have fire prevention equipment on-site, including fire extinguishers and shovels, and smoking would not be permitted on-site. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.

References

CAL FIRE (California Department of Forestry and Fire Protection). 2007. Draft Sutter County Fire Hazard Severity Zones. October 3, 2007.

DTSC (California Department of Toxic Substances Control). 2018. Envirostor Hazardous Waste and Substances Site List (Cortese). Available: https://www.envirostor.dtsc.ca.gov/public/map/?global_id=38330005. Accessed December 24, 2018.

Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
HYDROLOGY AND WATER QUALITY —				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project related to hydrology and water quality are discussed in greater detail in Section 3.7, *Hydrology and Water Quality*, of the EIR.

Environmental Setting

Surface Water Hydrology

The project area is located in Sutter County within the relatively flat Sacramento Valley, along the eastern bank of the Sacramento River. The Feather River forms a major portion of the county's eastern boundary.

Sutter County lies within the Sacramento River watershed, which also includes the Feather and Bear Rivers. The Sacramento River is California's largest river (in terms of volume of water and length), draining a watershed of approximately 27,210 square miles, including Sutter County. The Sacramento River forms a major portion of Sutter County's western boundary, flowing from Colusa County south to the Sutter/Sacramento County boundary (Sutter County, 2008).

Water Quality

Sacramento River water is treated and used for municipal and industrial water supplies upstream and downstream of Sutter County. The State Water Resources Control Board publishes updates to the *Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins* (Basin Plan) to improve water quality and maintain beneficial uses in the Sacramento and San Joaquin Rivers. The Basin Plan describes water quality concerns for the Sacramento River that includes agriculture, forestry, urban land uses, and stormwater runoff. Additionally, the Sacramento River in the area of the Proposed Project (Red Bluff to Knights Landing) is listed in the State Water Resources Control Board's total maximum daily load (TMDL) program for chlorpyrifos, dichlorodiphenyltrichloroethane (DDT), dieldrin, fecal coliform, mercury, polychlorinated biphenyls (PCBs), and unknown toxicity (State Water Board, 2010). The State Water Resources Control Board's TMDL programs are implemented pursuant to Clean Water Act Section 303(d) for impaired water bodies. TMDL programs are plans that describe how an impaired water body will meet federal water quality standards.

Groundwater Hydrology and Water Quality

The project area is located within the greater Sacramento Valley Groundwater Basin, Sutter Subbasin. The major surface water sources described above are major sources of groundwater recharge to the groundwater subbasin. Other sources of groundwater recharge in Sutter County are percolation of rainfall, agricultural irrigation, and subsurface inflow from adjacent groundwater basins. Groundwater pumping and subsurface outflow to rivers and adjoining subbasins result in a groundwater discharge from Sutter County.

In Sutter County, groundwater is used for water supplies, agricultural irrigation, and domestic drinking water. The county's groundwater levels are reported to be stable, tending to be within about 10 feet below the ground surface (Sutter County, 2008). Groundwater in the vicinity of the project area is also approximately 10 feet below the ground surface (DWR, 2018). DWR reported

that the Sutter Subbasin has an estimated 5 million acre-feet of usable storage potential for Sutter County (Sutter County, 2008).

Water quality in Sutter County is monitored by DWR, the California Department of Public Health, and the County. The primary groundwater chemistry is calcium, magnesium, sodium, chloride, sulfate, and bicarbonate. Recent groundwater data in portions of the county report chemical elements and compounds in amounts that exceed drinking water quality standards for safety and aesthetics. In addition, groundwater quality is expected to degrade in the future unless measures are taken to reduce contaminants in soil and prevent additional contamination. No major areas of groundwater contamination have been reported in Sutter County (Sutter County, 2008).

Flood Control and Flood Management Facilities

Tisdale Weir is one of the major overflow weirs that are part of the Sacramento River Flood Control Project. Tisdale is generally the first weir to overflow and the last to stop flowing. The weir is a fixed-elevation, ungated overflow structure that was originally designed to spill and convey up to 38,000 cubic feet per second of excess Sacramento River floodwaters into the Tisdale Bypass, a 4-mile-long channel that flows eastward to the Sutter Bypass.

The Sutter Bypass is a major man-made flood control area that acts as an overflow collector of flood flows in the Sacramento River after they pass through the Butte Slough and the Butte Sink. The Sutter Bypass starts north of Pass Road, westerly of the Sutter Buttes, and flows generally in a south-southeast orientation for about 27 miles to the Feather River, about 3 miles downriver from the rural community of Nicolaus (Sutter County, 2008).

Discussion

- a) **Potentially Significant Impact.** Soils in the project area have moderate to severe potential for erosion. Construction activities, excavation of soils and existing concrete, and other earth-disturbing activities could expose soils to temporary increased rates of erosion and sediment loading in receiving waters. In addition, in-water work during construction of the connection channel could agitate sediment and lead to downstream sedimentation and increased turbidity. Spills and leaks of common hazardous materials such as fuels, oils, and solvents during refueling and parking of heavy machinery used during project construction could contaminate soils. The improper handling, storage, or disposal of hazardous materials could degrade the quality of receiving surface waters. See Section 3.7, *Hydrology and Water Quality*, of the EIR for details regarding BMPs designed to minimize protect water quality. Additionally, in-water work during construction of the connection channel could agitate sediment, increasing turbidity in the Sacramento River. Therefore, impacts would be potentially significant, and these issues will be evaluated in the EIR.

- b) **Less-than-Significant Impact.** The Proposed Project would involve dewatering if water is present in the bypass area at the start of construction. After initial dewatering, maintenance dewatering would be conducted to provide dry site conditions. The water from dewatering operations would be discharged directly into the Tisdale Bypass, and the discharged water would likely percolate into the bed of the bypass. As a result, the water

from dewatering operations would still infiltrate the ground and provide groundwater recharge. Because of its localized, short-term nature, dewatering would not affect the local groundwater table. The Proposed Project's construction and O&M activities would not include groundwater extraction or lower the local groundwater table. In addition, construction activities would not likely interfere substantially with groundwater recharge because construction would occur during the dry season.

Rehabilitating Tisdale Weir would primarily involve removing and replacing existing components and patching, replacing, and sealing the existing structure. Installing the fish passage facilities would require adding minimal impervious surfaces to improve or reconstruct the entrance road; to construct an equipment pad, a control building, a connection channel, and a fish collection basin that could be made with concrete; and to install a basin access ramp. These project features would increase the impervious surfaces in the project area by only a small amount and would not substantially interfere with groundwater recharge. Water would still be able to percolate through exposed soil in most of the project area. Water used for dust control would be surface water and would not increase the use of groundwater. Therefore, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin. This impact would be less than significant, and this issue will not be evaluated in the EIR.

- c.i) **Potentially Significant Impact.** The Proposed Project would involve rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements, including a control building for monitoring equipment and an access road. During O&M activities, the Proposed Project would remove sediment and debris from portions of the bypass adjacent to the weir and from within the energy dissipation and fish collection basin, which could increase erosion or siltation. Therefore, this impact would be potentially significant, and this issue will be evaluated in the EIR.
- c.ii) **Less-than-Significant Impact.** During O&M activities, the Proposed Project would remove sediment and debris from portions of the bypass immediately adjacent to the weir and from within the energy dissipation and fish collection basin. These elements of the Proposed Project would improve the system's ability to accommodate runoff and would minimize the potential for on- and off-site flooding. The rehabilitated weir would continue to be operated in a manner consistent with existing conditions to minimize flooding. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.
- c.iii) **Less-than-Significant Impact.** As discussed above in the response to checklist question b), project features would increase the impervious surfaces in the project area by only a small amount. These features would not cause stormwater runoff to increase. In addition, these impervious surfaces would generally be located away from roadways and structures that typically collect water quality pollutants. Runoff from the impervious surfaces would neither degrade water quality nor affect or interfere with beneficial uses of waters in the

- project area. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.
- c.iv) **Potentially Significant Impact.** The Proposed Project would involve rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements, including a control building for monitoring equipment and an access road. The Proposed Project would rehabilitate and reconstruct Tisdale Weir and extend its design life; reduce fish stranding at the weir's energy dissipation basin; and improve fish passage to the Sacramento River at the weir. The project would support DWR in meeting its responsibilities under California Water Code Section 8361 to maintain and operate the Sacramento River Flood Control Project by extending the useful life of the weir. Further, the Proposed Project's O&M activities would remove sediment and debris from portions of the bypass adjacent to the weir and from within the basin, and the project would not construct features within the bypass that could redirect or block flood flows. However, installing a notch in the weir could change the flow of water downstream of the weir through the Tisdale Bypass and the Sutter Bypass. Therefore, this impact would be potentially significant, and this issue will be evaluated in the EIR.
- d) **Less-than-Significant Impact.** The Proposed Project would rehabilitate and reconstruct Tisdale Weir to address structural deficiencies and extend its design life; reduce fish stranding at the weir's energy dissipation basin; and improve fish passage to the Sacramento River at the weir. Rehabilitating the weir would support DWR in meeting its responsibilities to maintain and operate the Sacramento River Flood Control Project by extending the useful life of the weir.
- Construction activities would be required to comply with numerous hazardous materials regulations, as discussed in the *Hazards* subsection of this environmental checklist. In addition, construction contractors would be required to acquire coverage under the NPDES General Stormwater Permit from the Central Valley Regional Water Board to properly control and store hazardous materials and prevent pollutants from entering receiving waters during construction. O&M activities would be similar to existing O&M activities and would not result in a risk of release of pollutants due to project inundation. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.
- e) **Less-than-Significant Impact.** The project area is located within the Sacramento River Basin, for which the Basin Plan was revised most recently in May 2018 (Central Valley Regional Water Board, 2018). The construction contractor would be required to obtain an NPDES Construction General Permit from the Central Valley Regional Water Board before initiating earth-disturbing activities. Among other things, the conditions of the permit would include mandatory implementation of BMPs applicable to erosion control and preparation of a SWPPP to prevent sediment and other construction-related compounds (e.g., fuel, oil) from entering stormwater runoff.

Should water be present in the bypass area at the start of construction, a dewatering operation with approved screening on pump intakes would be conducted. After initial dewatering, maintenance dewatering would be completed to provide dry site conditions. Water from dewatering operations would be discharged directly into the bypass and turbidity would be monitored as appropriate (i.e., the discharged water would likely percolate into the bed of the bypass). Pump discharge would comply with approved BMPs. Equipment working below ordinary high water would be cleaned to prevent the spread of invasive species.

In addition, the construction contractor would be required to obtain a General Order for Dewatering and Other Low Threat Discharges to Surface Waters Permit for the management of dewatering activities to minimize the risk of effects on water quality. Therefore, with adherence to applicable permits and implementation of BMPs, the Proposed Project would not interfere with the Sutter County Groundwater Management Plan and would not include waste discharges that could conflict with the Basin Plan. This impact would be less than significant.

References

- Central Valley Regional Water Board (Central Valley Regional Water Quality Control Board). 2018. Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins. Fifth Edition. Revised May 2018 (with Approved Amendments).
- DWR (California Department of Water Resources). 2018. Groundwater Information Center Interactive Map Application. Available: <https://gis.water.ca.gov/app/gicima/>. Accessed December 26, 2018.
- State Water Board (State Water Resources Control Board). 2010. 2010 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report). Available: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. Accessed June 27, 2019.
- Sutter County. 2008. Sutter County General Plan Update Technical Background Report. Prepared by PBS&J in partnership with West Yost & Associates, DKS Associates, MuniFinancial, and Applied Development Economics. February 2008.

Land Use and Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
LAND USE AND PLANNING — Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Tisdale Bypass is a flood control structure bounded by levees and agricultural land to the north and south. The Sutter Mutual Water Company owns the parcel that would be used for the proposed southern staging area. The spoils site is located on fallow agricultural land owned by the Sacramento and San Joaquin Drainage District in the name of the Central Valley Flood Protection Board. The Garmire Road Bridge and the Tisdale Boat Launch Facility (maintained by the County) lie within the project area.

The *Sutter County 2030 General Plan* designates the project area as Agriculture (80-acre minimum) (AG-80) and Open Space (OS) (Sutter County, 2011). Land uses surrounding the project area are designated predominantly as AG-80 and OS as well.

The Agriculture (AG) designation provides for the long-term production, processing, distribution, and sale of food and fiber on prime agricultural soils and other productive and potentially productive lands. This designation applies to locations that experience minimal intrusion or conflicts with nonagricultural uses, or where such conflicts can be mitigated. Typical permitted uses include crop production, orchards, grazing, pasture and rangeland, and associated residences and agricultural support uses.

The OS designation identifies and permanently protects important open space lands in Sutter County because of their value as habitat or their topography or scenic quality, for public safety, or for a comparable purpose. Typical Open Space lands include nonagricultural areas that contain important vegetation, wildlife, and/or habitat resources; and areas that present conditions hazardous to rural and urban development. Typical permitted uses include resource preservation, agriculture, passive public recreation, buffers, and greenbelts (Sutter County, 2011).

The nearest residential communities to the project area are Marysville and Yuba City, approximately 15 miles to the northeast.

Discussion

- a) **No Impact.** The project area is located in a rural area of Sutter County. The Proposed Project would not include the construction of any buildings or other features that would create a new physical barrier between any existing communities or restrict access to any community. Project construction could cause some traffic disturbances that would temporarily affect roadway access, but the project would not restrict access to any community. Therefore, the Proposed Project would not physically divide an established community. No impact would occur, and this issue will not be evaluated in the EIR.
- b) **No Impact.** Construction activities would be temporary and would not conflict with existing land use designations. Operation of the weir and fish passage notch would affect inundation and flooding downstream (discussed in Section 3.2, *Agricultural Resources*, and Section 3.7, *Hydrology and Water Quality*, of the EIR). The Proposed Project would not conflict with State or local regulations.

The purpose of the Agriculture (AG) designation is to protect and promote the long-term viability and productivity of Sutter County’s agricultural resources, uses, and economy. This designation encourages agricultural support services and industries compatible with adjacent uses and operations. The Proposed Project is consistent with this land use designation because the proposed rehabilitation of Tisdale Weir is a critical component of the Sacramento River Flood Control Project, which is essential to agricultural operations in the area. In addition, the Proposed Project would not conflict with any policies or regulations. Therefore, no impact related to applicable land use plans, policies, and regulations would occur, and this issue will not be evaluated in the EIR.

References

Sutter County. 2011. Sutter County 2030 General Plan. Adopted by Sutter County Board of Supervisors on March 29, 2011, Resolution No. 11-029. Prepared in consultation with Atkins (formerly PBS&J), DKS Associates, West Yost Associates, and Willdan Financial Services. Yuba City, California.

Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
MINERAL RESOURCES — Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Unincorporated Sutter County has rich mineral resource deposits. The County’s Surface Mining Code and Zoning Code both permit the extraction of mineral resources from land under the County’s jurisdiction. Historic mining extraction has included kaolin and common clay, sand, soils, rock, pumice, and some gold. Construction aggregate is currently the main market for mining resources produced in Sutter County and consists predominantly of sand, gravel, soil for construction projects, and crushed stone (Sutter County, 2010). According to the California Geological Survey, no classification studies evaluating mineral resources or mineral resources mines have been conducted in or near the project area (CGS, 2018a, 2018b).

Discussion

a–b) **No Impact.** The Proposed Project would rehabilitate and reconstruct Tisdale Weir, install fish passage facilities, and complete associated improvements. The project area does not contain known mineral resources of State or local importance. Therefore, the excavation and disposal of sediment would not result in the loss of availability of or loss of access to

known or locally important mineral resources. No impact would occur, and these issues will not be evaluated in the EIR.

References

CGS (California Geological Survey). 2018a. CGS Information Warehouse: Mineral Land Classification. Available: <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>. Accessed December 14, 2018.

———. 2018b. Mines Online. Available: <https://maps.conservation.ca.gov/mol/index.html>. Accessed December 14, 2018.

Sutter County. 2010. Sutter County General Plan Draft Environmental Impact Report. State Clearinghouse No. 2010032074. Section 6.8, *Geology, Seismicity, and Mineral Resources*.

Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
NOISE — Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Noise can be generally defined as unwanted sound. Sound traveling in the form of waves from a source exerts pressure that is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing and 120–140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). Therefore, the sound pressure level constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, to assess potential noise impacts, sound is measured using an electronic filter that deemphasizes frequencies below 1,000 Hz and above 5,000 Hz, in a manner that corresponds

to the human ear's decreased sensitivity to low and extremely high frequencies relative to mid-range frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology for deemphasizing certain frequencies and is typically applied to community noise measurements.

Effects of Noise on People

When a new noise is introduced to an environment, humans' reactions can be predicted by comparing the new noise to the existing "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged to be by those hearing it. With regard to increases in A-weighted noise levels, the following relationships occur (Caltrans, 2013):

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived.
- Outside of the laboratory, a 3 dB change is considered a just-perceivable difference.
- A change of at least 5 dB is required before any noticeable change in human response is expected.
- A change of 10 dB is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The decibel scale was developed because the human ear perceives sound in a nonlinear fashion. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Noise generated by stationary point sources attenuates (lessen) at a rate between 6 dBA for hard sites and 7.5 dBA for soft sites for each doubling of distance from the reference measurement. (Stationary point sources include stationary mobile sources such as idling vehicles and construction equipment.) Hard sites are those with a reflective surface between the source and the receiver, such as a parking lot or smooth body of water. No excess ground attenuation is assumed for hard sites; the change in the noise level with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dBA (per doubling of distance) is normally assumed for soft sites.

Noise generated by line sources (such as traffic noise from vehicles) attenuates at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 2013).

Fundamentals of Vibration

Groundborne vibration can be a serious concern for neighboring structures and receptors. Some common sources of groundborne vibration are trains, buses on rough roads, and construction

activities such as blasting, sheet pile driving, and operation of heavy earth-moving equipment. The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items placed on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can damage buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and sheet pile driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Applicable Noise and Vibration Regulations

The County Code of Ordinances does not address construction-related noise. However, Policy N 1.6, Construction Noise, of the *Sutter County General Plan* requires discretionary projects to limit noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, day care centers, schools, convalescent homes, and medical care facilities) to the daytime hours between 7 a.m. and 6 p.m. on weekdays and 8 a.m. and 5 p.m. on Saturdays, and prohibits construction on Sundays and holidays unless permission has been applied for and granted by the County (Sutter County, 2011).

The Noise Element of the *Sutter County General Plan* requires construction projects to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on the Federal Transit Administration's groundborne vibration impact criteria. Those criteria are listed in **Table 1**.

**TABLE 1
GROUNDBORNE VIBRATION IMPACT CRITERIA FOR GENERAL ASSESSMENT**

Land Use Category	Frequent Events^a	Occasional Events^b	Infrequent Events^c
Category 1: Buildings where vibration would interfere with interior operations	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

NOTES:

VdB = vibration decibels

^a "Frequent events" is defined as more than 70 vibration events of the same source per day.

^b "Occasional events" is defined as between 30 and 70 vibration events of the same source per day.

^c "Infrequent events" is defined as fewer than 30 vibration events of the same kind per day.

^d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

SOURCE: Sutter County, 2011.

Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others because of the amount of noise exposure (in terms of both duration of exposure and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial (other than lodging facilities) and industrial land uses.

Adjacent land uses to the project area include agriculture, open space and associated support infrastructure. The County's Tisdale Boat Launch Facility (which includes a launch ramp and parking area) is also located in the project area. There are no residences or other sensitive receptors in the vicinity of the project area. The nearest residential communities to the project area are Marysville and Yuba City, approximately 15 miles to the northeast.

Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, students, and the elderly and sick), and vibration-sensitive equipment. No such receptors are located at or near the project area.

Discussion

- a) ***Construction: Less than Significant.*** The Proposed Project would involve rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements, including a control building for monitoring equipment and an access road. Construction activities would require the use of equipment that would generate noise. Construction noise levels at and near the project area would fluctuate depending on the particular type, number, and duration of use of the various pieces of construction equipment used. Construction-related worker trips and truck trips to and from the sites would increase ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used.

Construction would typically occur Monday through Friday, 12 hours per day, between 7 a.m. and 7 p.m. Construction times may be extended into the night or weekend during key times of construction, as needed. Project construction activities are expected to require the use of construction equipment such as excavators, loaders, bulldozers, a crane, forklifts, dump trucks, generators, and concrete mixing and pumping truck pumps. The option to use a concrete batch plant to mix concrete on-site instead of hauling pre-mixed concrete to the site is also being considered. If necessary, the concrete batch plant would be located in the southernmost staging area or the spoils site.

Table 2 shows typical noise levels produced by various types of construction equipment, including equipment that would be required for project construction.

TABLE 2
TYPICAL NOISE LEVELS FROM OPERATION OF CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Exposure Level, dBA at 50 Feet
Backhoe	80
Concrete Mixer (truck)	85
Concrete Pump (truck)	82
Concrete Batch Plant	83
Concrete Vibrator	76
Crane (derrick)	88
Crane (mobile)	83
Dozer	85
Excavator	85
Grader	85
Loader	85
Pickup Truck	75
Pump	76
Roller	74
Scraper	89

NOTE: dBA = A-weighted decibels

SOURCE: FHWA, 2017

Project construction activities would temporarily generate noise at and around the project area. No extreme noise-generating activities would be involved. Potential disturbance to fish species or their habitat from pile driving activities that could occur if a cofferdam is installed are addressed in Section 3.4, *Biological Resources*, of the EIR. The noisiest construction equipment that could be potentially used for project construction would generate approximately 89 dBA at 50 feet. However, because the project area is located near open space and agricultural areas with no residential or other sensitive uses in the vicinity, this noise would not affect any receptors. As discussed previously, the nearest sensitive receptors are located in Yuba City and Marysville, approximately 15 miles northeast of the project area.

Noise is a localized impact and attenuates with distance. Even in areas without intervening structures or topography, noise impacts are not felt beyond 0.5 mile from the source. In addition, neither the Sutter County Code nor the *Sutter County General Plan* establishes quantitative noise exposure standards that apply to construction activity. Although project construction would generally be limited to 7 a.m. to 7 p.m. on weekdays, some construction activities could occasionally take place during nighttime. Sutter County General Plan Policy N 1.6, Construction Noise, establishes limits on construction work hours and restricts construction activity to the daytime hours between 7 a.m. and 6 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturdays to limit noise-generating construction activities within 1,000 feet of noise-sensitive uses (Sutter County, 2011). However, because there are no residential uses within 1,000 feet of the

project area, the County's construction hour restrictions would not apply to the project and the impact of any nighttime construction would also be less than significant.

Vehicle trips transporting workers and construction equipment and materials to the project area would generate noise along roadways leading to the project area. Depending on the phase of construction, as many as 50 construction workers traveling to the project area would generate 100 one-way trips. In addition, trucks transporting equipment and materials (including hauling in pre-mixed concrete) would amount to a maximum of 12 trips per day. If a concrete batch plant were used in the project area to mix concrete on-site instead of hauling in premixed concrete, the number of truck trips would be reduced to five trips per day. This level of increase in traffic would not lead to a noticeable increase in noise levels along roadways. As a rule of thumb, it takes a doubling of traffic volume to increase total noise by 3 dBA, the smallest increase perceptible to the human ear. Therefore, the impact of a noise increase from project construction traffic would be less than significant.

Operation: Less than Significant. Maintenance and operational trips to the project facilities would occur during operation of the Proposed Project. DWR Flood Maintenance Yard staff, potentially with the help of contractors, would operate and maintain Tisdale Weir and the fish passage facility. Maintenance trips would include trips to remove or level sediment deposits, debris, and undesirable vegetation along the weir, within the basin, or within the connection channel and notch, repairing erosion around the structures and repairing damage to the operable weir gate and the weir structure. Removal of sediment and debris from the basin would generally occur annually, between April and November, although the frequency may vary based on the type of water year. These activities would lead to a minimal increase in traffic to the project area over existing conditions. The impact of noise from these vehicle trips to an area with no sensitive uses would be less than significant.

Maintenance activities at the project facilities would require the use of one or more light-duty trucks, excavators, loaders, dump trucks, graders, bulldozers, and/or chain saws for removal of sediment and large wood debris. However, given the absence of noise-sensitive receptors in the vicinity of the project area, the impact of noise from the use of such equipment for maintenance would be less than significant.

Overall, the Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project area in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies. This impact would be less than significant.

- b) **Less-than-Significant Impact.** Groundborne noise and vibration would be generated by construction equipment used at the project area but would attenuate rapidly with distance. Because of the distance separating the project area from the nearest sensitive receptors, any temporary vibration generated by construction equipment at the project area would not be perceptible by receptors. Therefore, impacts associated with the generation of excessive groundborne vibration or groundborne noise levels would be less than significant.

- c) **No Impact.** The project area is not located within 2 miles of a private airstrip or public use airport. The project area is not located within an airport land use plan. The nearest airport is the Vandeford Ranch Company Airport, a private airport approximately 7 miles northeast of the project area. No impact would occur related to the exposure of people residing or working in the project area to excessive noise levels from airport activity.

References

Caltrans (California Department of Transportation). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013.

FHWA (Federal Highway Administration). 2017. Construction Noise Handbook. Chapter 9, *Construction Equipment Noise Levels and Ranges*. Updated August 24, 2017.

Sutter County. 2011. Sutter County 2030 General Plan. Adopted by Sutter County Board of Supervisors on March 29, 2011, Resolution No. 11-029. Prepared in consultation with Atkins (formerly PBS&J), DKS Associates, West Yost Associates, and Willdan Financial Services. Yuba City, California. Noise Element.

Population and Housing

<u>Issues (and Supporting Information Sources):</u>	<u>Potentially Significant Impact</u>	<u>Less Than Significant with Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

According to U.S. Census Bureau 2018 population estimates, Sutter County is home to 96,807 people. There are two incorporated cities, Yuba City with a population of 66,992 and Live Oak with 8,771 residents (U.S. Census Bureau, 2019). The remaining residents live in the small communities of Tierra Buena, Meridian, Rio Oso, Trowbridge, Sutter, Pleasant Grove, Nicolaus, East Nicolaus, Riego, or Robbins, or reside in the vast rural, agricultural areas that make up Sutter County (Sutter County, 2019). There are no residential structures in or directly adjacent to the project area.

Between 2010 and 2018, the U.S. Census Bureau reported Sutter County's growth rate at 2.2 percent. For nearly 40 years, most of the county's growth has taken place in the incorporated cities of Yuba City and Live Oak. According to the U.S. Census, there were 34,204 housing units in Sutter County in 2017 (U.S. Census Bureau, 2019), of which 76 percent (25,912 households) were within the incorporated county area (U.S. Census Bureau, 2019).

Discussion

- a) **No Impact.** The Proposed Project would involve rehabilitation and reconstruction of Tisdale Weir to address structural deficiencies, installation of fish passage facilities, and associated improvements, including a control building for monitoring equipment and an access road. The project would not result in the construction of new homes, businesses, road extensions, or other infrastructure. The Proposed Project would employ approximately 34 workers during the 2-year construction schedule. These temporary employees would likely come from the existing labor pool in the region and would not cause the area’s population to increase. Existing DWR Flood Maintenance Yard staff would operate and maintain Tisdale Weir and the fish passage facility after project construction. Therefore, no impact would occur, and this issue will not be evaluated in the EIR.
- b) **No Impact.** No housing exists in the project area; therefore, the Proposed Project would not displace any housing. The Proposed Project also would not displace people, necessitating the construction of replacement housing elsewhere. Therefore, no impact would occur, and this issue will not be evaluated in the EIR.

References

- Sutter County. 2019. Sutter County Demographics. Available: https://www.suttercounty.org/doc/business/doingbusinessin/help_demographics#. Accessed June 27, 2019.
- U.S. Census Bureau. 2019. QuickFacts. Search for Live Oak city, California; Sutter County, California; Yuba City, California. Available: <https://www.census.gov/quickfacts/fact/table/liveoakcitycalifornia,suttercountycalifornia,yubacitycalifornia/HSG010218>. Accessed June 27, 2019.

Public Services

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
PUBLIC SERVICES —				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

There are six different fire districts in Sutter County. The Sutter County Fire Department protects approximately 250 square miles of the county (Sutter County, 2019). The Robbins Sutter Basin Fire Protection District serves the project area (Sutter County Development Services, 2019).

The Sutter County Sheriff's Department provides police protection services in unincorporated Sutter County and the city of Live Oak. The California Highway Patrol provides traffic enforcement on all highways in the county and all roadways in unincorporated areas. The Sutter County Sheriff's Department operates two stations: a dispatch center at 1077 Civic Center Boulevard in Yuba City and a substation at 2755 Fir Street in Live Oak (Sutter County Sheriff, 2019). The Highway Patrol has one office in Yuba City at 1619 Poole Avenue, which serves Sutter and Yuba Counties (California Highway Patrol, 2019).

There are 15 school districts in Sutter County. There are no schools near the project area (Sutter County Superintendent of Schools, 2019). There are no parks in the vicinity of the project area; the closest park is Happy Park, which is approximately 14 miles away.

Discussion

a.i–v) **No Impact.** The Proposed Project would employ approximately 34 workers during the 2-year construction schedule. These temporary employees would likely come from the existing labor pool in the region and would not cause the area's population to increase. Existing DWR Flood Maintenance Yard staff would operate and maintain Tisdale Weir and the fish passage facility after project construction. As a result, there would be no need to construct any new government facilities. Demand for police and fire protection and for community amenities such as schools, parks, or libraries would not change. No impact would occur, and these issues will not be evaluated in the EIR.

References

California Highway Patrol. 2019. Yuba-Sutter. Available: [https://www.chp.ca.gov/Find-an-Office/Valley-Division/Offices/\(285\)-Yuba-Sutter](https://www.chp.ca.gov/Find-an-Office/Valley-Division/Offices/(285)-Yuba-Sutter). Accessed August 6, 2019.

Sutter County. 2019. Fire Services. Available: https://www.suttercounty.org/doc/government/depts/ds/fs/cs_fire_services. Accessed August 6, 2019.

Sutter County Development Services. 2019. County Service Areas (CSA) and Fire Protection Districts. Available: https://www.suttercounty.org/assets/pdf/cs/fs/Fire_Districts.pdf. Accessed August 6, 2019.

Sutter County Sheriff. 2019. Operations Division. Available: <https://www.suttersheriff.org/div/OperationsDiv.aspx>. Accessed August 6, 2019.

Sutter County Superintendent of Schools. 2019. School Districts. Available: <http://www.sutter.k12.ca.us/School-Districts/>. Accessed August 6, 2019.

Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
RECREATION —	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project related to recreation are discussed in greater detail in Section 3.8, *Recreation*, of the EIR.

Environmental Setting

Recreational opportunities in the project vicinity include hiking, birdwatching, hunting, and fishing. The Tisdale Bypass is part of the Sutter Bypass Wildlife Area, managed by the California Department of Fish and Wildlife, and provides opportunities for nature photography, birdwatching, fishing, and hunting. Boaters use the Sacramento River; the Tisdale Boat Launch Facility is located at the western boundary of the project area; and the Sutter National Wildlife Refuge is located northeast of the project area, along the Sutter Bypass (CDFW, 2016).

Discussion

- a) **Potentially Significant Impact.** Development of the Proposed Project has the potential to affect access to the Sutter Bypass Wildlife Area and the Tisdale Boat Launch Facility and to result in a temporary loss of lands available for recreation. Therefore, this impact would be potentially significant, and this issue will be evaluated in the EIR.
- b) **No Impact.** The Proposed Project would not include recreational facilities, nor would it increase population in the project area (see the *Population and Housing* subsection of this environmental checklist) that would increase the demand for recreational facilities. Therefore, no impact related to recreation would result from the Proposed Project, and this issue will not be evaluated in the EIR.

References

CDFW (California Department of Fish and Wildlife). 2016. Sutter Bypass Wildlife Area map. August 2016. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87895&inline>. Accessed November 28, 2018.

Transportation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
TRANSPORTATION — Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Sutter County has a comprehensive transportation system to serve the diverse travel needs of the area. It includes State highways, local roads, urban arterials, rural highways and streets, bus transit services, freight rail, and airports.

Access to the project area is available from County roads, including Reclamation Road, Tisdale Road, Garmire Road, Cranmore Road, and Progress Road, and State Routes 20, 45, 99, and 113 and Interstate 5. Most of the traffic would be generated by trucks and other earth-moving and hauling equipment within the project area during construction.

The County measured traffic levels on some of these roads in 2008, using traffic counts for specific segments for each roadway. **Table 3** shows the average daily trips for each roadway.

TABLE 3
EXISTING AVERAGE DAILY TRIPS ON PROJECT HAUL ROUTES

Roadway	Segment	ADT Range
I-5	Between Colusa and Sacramento County lines	35,500 to 59,900
SR 20	Colusa County line to Yuba City limits	7,200 to 17,500
SR 99	I-5 to SR 70	15,100 to 55,000
SR 113	Yolo County line to SR 99	3,850 to 7,400
Progress Road	McClatchy Road to Reclamation Road	1,010 to 1,250
Reclamation Road	SR 113 to Progress Road	1,060 to 1,890

NOTES: ADT = average daily trips; I-5 = Interstate 5; SR = State Route

SOURCES: Sutter County, 2008; Caltrans, 2019

Discussion

- a–b) **Less-than-Significant Impact.** Construction activities would temporarily increase vehicle trips on area roadways. Approximately 24 truck trips per day would be required

- over an approximately 110-day duration to haul the spoils to the storage area, and by approximately 34 construction workers. If a concrete batch plant were necessary, trucks would also be used transport the material. Existing DWR Flood Maintenance Yard staff would operate and maintain Tisdale Weir and the fish passage facility after project construction. The Proposed Project would result in a minimal temporary increase in traffic levels along local roadways and would not worsen travel times on roads in the project vicinity. Further, the project would not conflict with a plan, ordinance, or policy addressing the circulation system, including transit, or designated bicycle and pedestrian facilities. Traffic would be limited to vehicles used by construction and O&M workers. Impacts would be less than significant, and these issues will not be evaluated in the EIR.
- c) **No Impact.** The Proposed Project would not involve designing or constructing any new public roadways. An entrance road would be constructed or improved to transport large equipment (e.g., a crane or excavator) and provide other vehicles with access to the equipment pad and control building area at the north abutment. In addition, a basin access ramp would be constructed on the south side, extending from the levee road to the basin/bypass bottom. There are no sharp curves or dangerous intersections along the local roadways that would be used for the project that would increase traffic safety hazards. Portions of the eastern edge of the parking lot for the Tisdale Boat Launch Facility would be temporarily blocked off to public access during construction; however, construction workers would manage vehicle flow and maneuvering in and out of the parking lot. Therefore, no impact would occur, and this issue will not be evaluated in the EIR.
- d) **No Impact.** The entrance road and access ramp constructed would be used for all ingress and egress by construction equipment. These facilities would not result in inadequate emergency access on Reclamation Road. No impact would occur, and this issue will not be evaluated in the EIR.

References

- Caltrans (California Department of Transportation). 2019. 2017 Traffic Volumes: Route 5–6. Caltrans Traffic Census Program. Available: <http://www.dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-5-6>. Accessed August 2019.
- Sutter County. 2008. Sutter County General Plan Update Technical Background Report. Prepared by PBS&J in partnership with West Yost & Associates, DKS Associates, MuniFinancial, and Applied Development Economics. February 2008.
- . 2011. Sutter County 2030 General Plan. Section 6.14, *Transportation and Circulation*. Available: <https://www.suttercounty.org/assets/pdf/cs/ps/gp/documents/deir/06.14%20Traffic.pdf>. Accessed August 2019.

Tribal Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
TRIBAL CULTURAL RESOURCES —				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The environmental setting and potential impacts of the Proposed Project on tribal cultural resources are discussed in greater detail in Section 3.9, *Tribal Cultural Resources*, of the EIR.

Environmental Setting

This section uses the key term “tribal cultural resource.” This resource type consists of sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, in the National Register of Historic Places, California Register of Historical Resources, or a local register of historical resources.

Through background research, Native American correspondence, and a field survey conducted for the Proposed Project, no tribal cultural resources, including indigenous archaeological resources or human remains that could qualify as tribal cultural resources, were identified in the project area (ESA, 2019).

Discussion

a.i–ii) **Potentially Significant Impact.** No tribal cultural resources, as defined in PRC Section 21074, have been identified in the project area through archival research, a field survey, and Native American consultation. Furthermore, extensive work, including excavation for installing deep foundations for the Garmire Road Bridge, has been conducted in this area without any findings. Therefore, there is no substantial evidence of the presence of any tribal cultural resources in the project area. As a result, the Proposed Project is not expected to result in an impact on any tribal cultural resources, as defined in PRC Section 21074.

Although there is no substantial evidence of the presences of any tribal cultural resources in the project area, including those that meet the definition under PRC Section 21074, the Proposed Project would involve ground-disturbing activities that may extend into undisturbed soil. It is possible that such activities could unearth, expose, or disturb subsurface tribal cultural resources, as defined in PRC Section 21074, , that were not identified on the surface. Any impacts of the Proposed Project on tribal cultural resources would be potentially significant, and these issues will be evaluated in the EIR.

References

ESA (Environmental Science Associates). 2019. *Tisdale Weir Rehabilitation and Fish Passage Project, Sutter County, California: Cultural Resources Inventory and Evaluation Report*. Prepared for California Department of Water Resources.

Utilities and Service Systems

<u>Issues (and Supporting Information Sources):</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
UTILITIES AND SERVICE SYSTEMS —				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Sutter County uses primarily groundwater for potable water supplies. In rural areas, most of the groundwater is pumped by privately owned wells. There are four known abandoned dry wells and one suspended well location (never drilled) in or adjacent to the project area. Groundwater resources in Sutter County consist of three subbasins of the Sacramento Valley Groundwater Basin: the East Butte, North American, and Sutter Subbasins.

Surface water is used in Sutter County primarily for agricultural operations. Surface water also composes a portion of the supply for Yuba City. Surface water for agricultural and urban uses is obtained from the Sacramento and Feather Rivers. The Sutter Mutual Water Company, the nearest water supplier in the project vicinity, serves untreated water for irrigation. The adequacy of Sutter Mutual's water supply is dependent on the type of crops being grown during that year and the availability of water from the Sacramento River. When rice has been widely planted, the water demand exceeds the available water supply. In these situations, Sutter Mutual has purchased water from other sources. When crops such as tomatoes, carrots, and beans are widely planted, the available water supply is adequate. During drought years, Sutter Mutual is short of water because its supplies are reduced (Sutter County, 2008).

Wastewater is treated and disposed of through on-site wastewater treatment systems. Septic tanks are designed with varying capacities depending on the amount of waste generated. The County requires that permits for septic systems be obtained through the Community Services Department (Sutter County, 2010).

Recology Yuba Sutter provides yard waste, recycling, and garbage collection service to the communities of Beale Air Force Base, Live Oak, Marysville, Wheatland, Yuba City, and the counties of Yuba and Sutter (Recology Waste Zero, 2019). The nearest disposal locations are the Yuba-Sutter Household Hazardous Waste Collection Facility, Ponderosa Transfer Station, Feather River Organics, and the Ostrom Road Landfill.

Discussion

- a) **Potentially Significant Impact.** The Proposed Project would include removing utility poles and filling the resulting holes in the bypass channel during the dry season. Outside utility companies (Pacific Gas and Electric Company and AT&T) would relocate the power and communication lines to the Garmire Road Bridge through existing utility openings that were installed during construction of the bridge. Potentially significant impacts on nesting birds or roosting bats could result from the utility line relocation; this topic is addressed in Section 3.4, *Biological Resources*, of the EIR.
- b) **Less-than-Significant Impact.** Water would be provided by contractors that have contracted access to local water suppliers for dust suppression. Water demand would be temporary and minor, with no new or expanded entitlements required. Therefore, impacts related to the availability of water supplies would be less than significant, and this issue will not be evaluated in the EIR.
- c) **No Impact.** The Proposed Project would not result in the construction of any new facilities or population that would generate wastewater requiring treatment. Portable toilets would be used on-site, and the proposed project would not result in an exceedance of the Central Valley Regional Water Board's wastewater treatment requirements. No impact would occur, and this issue will not be evaluated in the EIR.
- d–e) **No Impact.** The Proposed Project would generate a small volume of construction waste from removal of vegetation, debris, and sediment. Organic and non-organic material

would be hauled to an approved disposal site in pickup or dump trucks. The Proposed Project would not generate a volume of waste that would exceed the permitted capacity of applicable landfills serving the project area. All waste would be disposed of in accordance with federal, State, and local statutes and regulations. No impact would occur, and these issues will not be evaluated in the EIR.

References

Recology Waste Zero. 2019. Nearby Locations. Available: <https://www.recology.com/recology-yuba-sutter/contact/#>. Accessed August 6, 2019.

Sutter County. 2008. Sutter County General Plan Update Issue Discussion Paper: Infrastructure. June 2008. Available: https://www.suttercounty.org/agenda/agendaimage/item/2760/agenda_item_SutterCountyInfrastructureDiscussion. Accessed August 6, 2019.

———. 2010. Sutter County General Plan Draft Environmental Impact Report. SCH No. 2010032074. Prepared by PBS&J. September 2010. Section 6.13, *Public Utilities*. Available: <https://www.suttercounty.org/assets/pdf/cs/ps/gp/documents/deir/06.13%20Public%20Utilities.pdf>. Accessed August 6, 2019.

Wildfire

<u>Issues (and Supporting Information Sources):</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project area is located in a Local Responsibility Area that is designated as a Moderate Fire Hazard Severity Zone. The project area is approximately 2 miles northeast of both Local and State Responsibility Areas that have been designated as Very High Fire Hazard Severity Zones (CAL FIRE, 2019). The project area is relatively flat and located near the foot of the Santa Teresa Hills. Aside from Tisdale Weir, the boat ramp and parking lot, and the Garmire Road Bridge, the

project area is predominantly undeveloped and portions of the site have been disked. The undisked portions of the project area are covered with a dense growth of volunteer grass vegetation.

Discussion

- a) **Less-than-Significant Impact.** As discussed in the *Transportation* subsection of this environmental checklist, the Proposed Project would result in a minimal temporary increase in traffic levels along local roadways. Workers would access the project area daily from the south via State Route 113 North to Reclamation Road, or from the north via State Route 20 to Tarke Road to Garmire Road or Reclamation Road.

The Proposed Project would establish four staging areas in the project area. Worker vehicles would park in the staging areas or on top of the levee road. Contractor fuel storage would be isolated to the southernmost staging area, outside of in-water areas. If necessary, the concrete batch plant would be located in the southernmost staging area or the spoils site. However, given the rural nature of the project area, relatively low traffic volumes, and the temporary nature of construction, alternative routes are anticipated to be readily available. Therefore, the Proposed Project would not impair an adopted emergency response or emergency evacuation plan. This impact would be less than significant, and this issue will not be evaluated in the EIR.

- b) **Less-than-Significant Impact.** The Proposed Project would not include any residential structures, and therefore would not have any permanent occupants. Because of the volunteer vegetation on the site and the surrounding hills with annual grasses, chaparral, and oak woodlands, the fire risk in the project area is relatively high, given the physical characteristics of areas surrounding the project area.

Project construction would require the presence of some vehicles and heavy equipment for grading and other activities. Vehicles and equipment present on-site could lead to a minor increase in the risk of ignition, as they could generate a spark, which could ignite a fire in an area with highly flammable vegetation. During most construction work, the risk of igniting a fire would be low because one of the first steps during construction would be to remove vegetation on-site. Vegetation removal would reduce the risk of ignition substantially. In addition, because of the short duration of construction—two consecutive 6.5-month seasons—the risk of wildfire introduced by project construction would be temporary.

During project operation, no activities would occur that could introduce a wildfire risk. As a result, the impact of the change in wildfire risk introduced by the Proposed Project would be less than significant, and this issue will not be evaluated in the EIR.

- c) **No Impact.** The Proposed Project does not require infrastructure that may exacerbate fire risk and would not contribute substantially to the wildfire risk in the project area. No impact would occur, and this issue will not be evaluated in the EIR.

- d) **Less-than-Significant Impact.** As discussed above in the response to checklist question b), the Proposed Project would not substantially affect or elevate the risk of wildfire on-site. The project area is relatively level. There are no nearby residences downstream or downslope of the project area. The Proposed Project would not result in a substantial effect on the area’s wildfire risk, and therefore would not expose people or structures to substantial post-fire risks such as downslope or downstream flooding. Therefore, this impact would be less than significant, and this issue will not be evaluated in the EIR.

References

CAL FIRE (California Department of Forestry and Fire Protection). 2019. Fire Hazard Severity Zones Viewer. Available: <https://egis.fire.ca.gov/FHSZ/>. Accessed June 24, 2019.

Mandatory Findings of Significance

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
MANDATORY FINDINGS OF SIGNIFICANCE —	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a–c) **Potentially Significant Impact.** The EIR will analyze the potential for the Proposed Project to affect the environment or human beings, both individually and on a cumulative basis when viewed in connection with the effects of past, current, and probable future projects.